23/03/2024

**FUNCTIONS in C**

**Without arg without return**

#include <stdio.h>

int r,d,c,a;

void diameter();

void circumfrence();

void area();

void main(){

scanf("%d",&r);

diameter();

circumfrence();

area();

}

void diameter(){

d=2\*r;

printf("Diameter: %d\n",d);

}

void circumfrence(){

c=2\*3.14\*r;

printf("Circumfrence: %d\n",c);

}

void area(){

a=3.14\*(r\*r);

printf("Area: %d",a);

}

**Without arg with return:**

#include <stdio.h>

int r,d,c,a;

int diameter();

int circumfrence();

int area();

int main(){

scanf("%d",&r);

diameter();

circumfrence();

area();

int r1=d;

int r2=c;

int r3=a;

printf("Diameter: %d\n",r1);

printf("Circumfrence: %d\n",r2);

printf("Area: %d",r3);

}

int diameter(){

d=2\*r;

return d;

}

int circumfrence(){

c=2\*3.14\*r;

return c;

}

int area(){

a=3.14\*(r\*r);

return a;

}

**With arg Without return**

#include<stdio.h>

void print();

void main(){

int a;

scanf("%d",&a);

print(a);

}

void print(int x,int y){

y=x\*x\*x;

printf("%d",y);

}

**With arg With return**

#include<stdio.h>

int print();

int main(){

int a,c;

scanf("%d",&a);

c=print(a);

printf("%d",c);

}

int print(int x){

int y;

y=x\*x\*x;

return y;

}

**Prime and Armstrong number**

#include<stdio.h>

#include<math.h>

int a,temp,temp1,c,rem;

void prime();

void armstrong();

void main(){

scanf("%d",&a);

prime();

armstrong();

}

void prime(){

for(int i=1;i<=a;i++){

if(a%i==0){

temp+=1;

}

}

if(temp>2){

printf("%d is not prime",a);

}

else{

printf("%d is prime",a);

}

}

void armstrong(){

int b=a;

while(b>0){

b/=10;

temp1+=1;

}

int d=a;

while(d!=0){

rem=d%10;

c=c+pow(rem,temp1);

d=d/10;

}

if(c==a){

printf(" and Armstrong");

}

else{

printf(" and Not Armstrong");

}

}